

Comparisons of Job Characteristics

Focus Occupation: Nuclear Power Reactor Operators (51-8011)

Associated Occupation: Nuclear Engineers (17-2161)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 92

Focus Occupation: Nuclear Power Reactor Operators (51-8011)

Associated Occupation: Nuclear Engineers (17-2161)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Engineering and Technology	5.7	24.3	10.7	<<	Extensive education and/or training may be required
Physics	4.3	20.8	14.5	<<	Extensive education and/or training may be required
Mathematics	9.2	19.9	11.8	<<	Extensive education and/or training may be required
Design	5.2	17.3	7.4	<<	Extensive education and/or training may be required
Chemistry	4.8	16.2	10.4	<<	Extensive education and/or training may be required
Computers and Electronics	8.4	15.9	8.7	<<	Extensive education and/or training may be required
Public Safety and Security	6.9	14.2	9.2	<<	Extensive education and/or training may be required
Mechanical	6.8	13.6	10.1	<<	Extensive education and/or training may be required
Administration and Management	8.4	13.0	6.1	<<	Extensive education and/or training may be required
Law and Government	5.9	9.9	6.0	<<	Extensive education and/or training may be required
Building and Construction	4.0	8.2	3.9	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 45

Focus Occupation: Nuclear Power Reactor Operators (51-8011)

Associated Occupation: Nuclear Engineers (17-2161)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Operations Analysis	5.0	15.7	1.4	<<	Extensive development of skills in this area may be required
Critical Thinking	10.8	14.8	12.5	<	A higher skill level may be required
Science	4.5	14.1	6.9	<<	Extensive development of skills in this area may be required
Systems Analysis	6.5	12.6	7.5	<<	Extensive development of skills in this area may be required
Operation Monitoring	6.6	12.0	13.7	>	Skill level is likely sufficient
Mathematics	6.2	11.9	8.2	<<	Extensive development of skills in this area may be required
Systems Evaluation	6.4	11.8	6.4	<<	Extensive development of skills in this area may be required
Quality Control Analysis	5.9	10.7	9.3	<	A higher skill level may be required
Technology Design	2.6	6.4	1.4	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 90			
Focus Occupation: Nuclear Power Reactor Operators (51-8011) Associated Occupation: Nuclear Engineers (17-2161)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Oral Comprehension	12.5	17.0	13.2	<<	Extensive improvement in abilities may be required
Problem Sensitivity	11.1	16.6	14.8	<	Some improvement in abilities may be required
Written Comprehension	11.0	16.2	13.0	<<	Extensive improvement in abilities may be required
Oral Expression	12.4	16.0	13.2	<	Some improvement in abilities may be required
Written Expression	9.8	14.8	11.5	<<	Extensive improvement in abilities may be required
Inductive Reasoning	10.2	13.9	11.9	<	Some improvement in abilities may be required
Deductive Reasoning	10.6	13.8	11.9	<	Some improvement in abilities may be required
Category Flexibility	9.0	12.2	10.0	<	Some improvement in abilities may be required
Mathematical Reasoning	6.3	11.2	8.7	<	Some improvement in abilities may be required
Number Facility	6.3	10.6	8.1	<<	Extensive improvement in abilities may be required
Perceptual Speed	7.4	10.2	12.5	>	Current ability level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 71

Focus Occupation: Nuclear Power Reactor Operators (51-8011)
Associated Occupation: Nuclear Engineers (17-2161)

Work Activities	Exclusivity of Activity
Direct and coordinate activities of workers or staff	3
Ensure prescribed safe radiation levels are maintained	89
Read technical drawings	7
Understand technical operating, service or repair manuals	6

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 80

Focus Occupation: Nuclear Power Reactor Operators (51-8011)
Associated Occupation: Nuclear Engineers (17-2161)

Tools and Technologies	Exclusivity
Computers	1
Content authoring and editing software	1
Data management and query software	1
Nuclear reactor equipment	80
Respiratory protection	6
Safety apparel	4

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.